RIORDAN ET AL.   Appl. No. 10/083,876
"Software Content Downloading Methods   Confirm. No. 4745
in radio Communication Networks"   Examiner G. Duong
Atty. Docket No. CS11457   Art Unit 2155

REMARKS

Request for Reconsideration, Informal Matters, Claims Pending

The non-final Office action mailed on 14 June 2006 has been considered carefully. Reconsideration of the claimed invention in view of the amendments above and the discussion below is respectfully requested.

Claim 1 was amended grammatically and idiomatically to address informal objections.

Claims 1-2 and 4-17 are pending.

Allowability of Claims Over Tanaka & Hamabe

Rejection Summary

Claims 1-4, 6 and 16 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,671,509 (Tanaka) in view of U.S. Publication No. 2002/0115467 (Hamabe).

The Examiner admits that Tanaka fails to disclose "… sending a message to a plurality of terminals on corresponding dedicated communication channels to receive the common software content on a shared channel [and] transmitting the common software content from the network to the plurality of terminal[s] on the shared communication channel after sending the message."

Discussion of Claim 1

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Regarding Claim 1, Tanaka fails to disclose or suggest a

> radio communication network software downloading method, comprising:
> communicating terminal unique information for downloading common software content from the network to a plurality of terminals in the network on corresponding dedicated communication channels for each terminal;
> sending a message to the plurality of terminals on corresponding dedicated communication channels to receive the common software content on a shared channel;
> transmitting the common software content from the network to the plurality of terminals on the shared communication channel after sending the message.

The Examiner's references to various passages of Tanaka do not support the assertion that Tanaka meets the "communicating" limitation of Claim 1. At col. 6, lines 5-10, Tanaka discusses a base station that communicates with a mobile station via a radio channel. At col. 15, lines 58-67, Tanaka discusses dividing system software into a plurality of extended information elements before transmission. Contrary to the Examiner's suggestion, Tanaka does not disclose or suggest "... sending terminal unique information for downloading common software content to a plurality of terminals on corresponding dedicated communication channels for each terminal."

Further, the Examiner's reliance on Hamabe does not meet the "communicating" or the "sending" and "transmitting" limitations of Claim 1. At para. 0005, Hamabe discusses sending control information on a DPCH. At paras. 0045-50, Hamabe discusses the usage of CIPCH, DPCH, HS-PDSCH, and DPCCH. At paras. 0070-0077, Hamabe discusses sending data a

notification over a DPCH and sending data over a HS-DPSCH. Claim 1 is thus patentably distinguished over Tanaka.

Discussion of Claim 6

Regarding Claim 6, Tanaka fails to disclose or suggest in combination with Claim 1,

> … multiplexing a plurality of different common software content on the shared communication channel, dynamically adjusting the plurality of different common software content multiplexed on the shared communication channel.

While Tanaka discusses dividing system software into a plurality of extended information elements before transmission at col. 15, lines 58-67, there is no indication that Tanaka performs the dividing "dynamically". Claim 6 is thus further patentably distinguished over Tanaka and Hamabe.

Allowability of Claims Over Tanaka

Rejection Summary

Claims 9-10 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,671,509 (Tanaka).

Discussion of Claim 9

Regarding Claim 9, Tanaka fails to disclose or suggest a

... radio communication network software downloading method, comprising:

transmitting software content from a radio communication network to a plurality of terminals in the network by multiplexing the software content on a shared communication channel received by the plurality of terminals;

dynamically adjusting the software content multiplexed on the shared communication channel.

Tanaka generally discloses a mobile communication unit that may be configured to operate according to different types of communication principles, e.g., PHS, PDC, LAN, etc, using system software received from a base station.

The Examiner's references to various passages of Tanaka do not support the asserted rejection. At col. 3, lines 47-51, Tanaka discusses a base station that includes a system software supply means for successively and repeatedly transmitting the system software via a radio link. At col. 4, lines 48-58, Tanaka discusses a base station that transmits system software to a mobile unit over broadcast and control channels corresponding to different modes of operation of the base station. Here, Tanaka multiplexes the transmission of the software over different channels (corresponding to the different modes of operation of the base station). At col. 8, lines 11-61, Tanaka discusses a unidirectional broadcast channel and a traffic channel used to transfer user information between the base station and mobile station. At col. 12, lines 14-28, Tanaka discusses a common access channel (having a frequency associated with a corresponding zone) shared by multiple mobile stations wherein the common control channel includes a BCCH, a CCCH and a UPCH. At col. 15, lines 58-67, Tanaka discusses dividing the system software into multiple elements or combining multiple system software items, depending on the length of the software, before transmission. Contrary to the

Examiner's assertion, however, there is no indication that Tanaka performs the dividing and combining "dynamically". In Tanaka, the divided or combined items merely constitute extended information elements that are transmitted to the mobile units. Claim 9 is thus patentably distinguished over Tanaka.

Allowability of Claims Over Tanaka & Levitan

Rejection Summary

Claims 11 and 12 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,671,509 (Tanaka) in view of U.S. Patent No. 6,964,913 (Levitan).

The Examiner admits that Tanaka fails to disclose adjusting a transmission time of each of the plurality of software files, but asserts that Levitan meets this limitation.

Discussion of Claim 11

Regarding Claim 11, Tanaka and Levitan fail to disclose or suggest in combination with Claim 9, "... the software content comprises a plurality of different software files, dynamically adjusting the software content multiplexed on the shared communication channel by adjusting a transmission time of each of the plurality of software files."

The Examiner's citations to various passages of Levitan do not support the rejection of Claim 11. At col. 7, lines 8-20, Levitan discusses periodically transmitting an Internet file from a server for a number of day

proportional to a number of clients requesting the file. Levitan does not suggest dynamically adjusting software content multiplexed on shared communication channel. Tanaka cyclically transmits the system software without regard for the number of request, and thus there is not suggestion to combine the teaching of Levitan with that of Tanaka. Claim 11 is thus further patentably distinguished over the art.

Discussion of Claim 12

Regarding Claim 12, Tanaka fails to disclose or suggest in combination with Claim 9, "... the software content comprises a plurality of different software files, dynamically adjusting the software content multiplexed in the shared communication channel by adjusting the number of times each of the plurality of files is transmitted."

The Examiner's citations to various passages of Levitan do not support the rejection of Claim 12. At col. 7, lines 8-28, Levitan discusses periodically transmitting an Internet file from a server for a number of day proportional to a number of clients requesting the file. Levitan does not suggest dynamically adjusting software content multiplexed on shared communication channel. Tanaka cyclically transmits the system software without regard for the number of request, and thus there is not suggestion to combine the teaching of Levitan with that of Tanaka. Claim 12 is thus further patentably distinguished over the art.

Allowability of Claims Over Tanaka & Park

Rejection Summary

Claim 14 stands rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,671,509 (Tanaka) in view of U.S. Patent No. 6,744,738 (Park).

Discussion of Claim 14

Regarding Claim 14, Tanaka fails to disclose or suggest in combination with Claim 9, "... the software content comprises a plurality of software files, dynamically adjusting the software content multiplexed on the shared communication channel by prioritizing the transmission of more essential software files over the transmission of less essential software files."

The Examiner's citations to various passages of Park do not support the rejection of Claim 14. At col. 3, lines 7-42, Park discusses reducing encoded video data based on the degree of importance of the data in applications where the transmit rate exceeds a channel bandwidth, thereby obviating the need to buffer data, which would otherwise have delayed transmission. The problem addressed by Park is not related to the object of Tanaka (providing system software), and thus there is no reason for the asserted combination. Park nevertheless fails to suggest dynamically adjusting the software content multiplexed on the shared communication channel by any means. Claim 14 is thus further patentably distinguished over the art.

Allowability of Claims Over Tanaka & Mangin

Rejection Summary

Claim 15 stands rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,671,509 (Tanaka) in view of U.S. Patent No. 5,982,778 (Mangin).

Discussion of Claim 15

Regarding Claim 15, Tanaka fails to disclose or suggest in combination with Claim 9, "... the software content comprises a plurality of software files, dynamically adjusting the software content multiplexed on the shared communication channel based upon at least one of file size and a number of the plurality of terminals receiving the software files."

Mangin is concerned with releiving congestion in point-to-point networks and thus there is no reason for the asserted combination. Mangin nevertheless fails to suggest dynamically adjusting the software content multiplexed on the shared communication channel by any means. Claim 15 is thus further patentably distinguished over the art.

Prayer For Relief

In view of the amendments and the discussion above, the Claims of the present application are in condition for allowance. Kindly withdraw

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any rejections and objections and allow this application to issue as a United States Patent without further delay.

Respectfully submitted,

/ R K Bowler /

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